

# ENVIRONMENT AND ENERGY CONSERVATION COMMISSION

c/o Department of Environmental Services 2100 Clarendon Blvd., Suite 705 Arlington, VA 22201

December 20, 2017

The Honorable Katie Cristol, Chair  
Arlington County Board  
2100 Clarendon Blvd.  
Arlington, VA 22201

**Subject: E2C2 Position in Favor of Arlington County Commitment to 100% Renewable Electricity by 2035**

Dear Chair Cristol:

The Environment and Energy Conservation Commission (E2C2) has considered the proposal advanced by a number of Arlington environmental and civic organizations calling on the County Board to commit to achieving 100% renewable electricity community-wide by 2035. After careful review and discussion, the Commission has adopted a position in favor of this proposal and urges the County Board to adopt a resolution committing the County to this goal.

In making this commitment, Arlington would join more than 50 cities and counties that already have done so, including Atlanta, Georgia; Orlando, Florida; Columbia, South Carolina; and San Diego, California. This commitment would also complement and support the Community Energy Plan (CEP) adopted by the County Board in June 2013.

The benefits of making this commitment include:

## **1. Meeting Arlington's CEP greenhouse gas emission reduction goals**

There is now overwhelming scientific consensus that we must sharply reduce fossil fuel-based energy use to avoid catastrophic climate change. Arlington has shown admirable leadership in this transition in many ways, including its adoption of the Community Energy Plan, endorsing the Metropolitan Washington Council of Government's goal of an 80% reduction of greenhouse gas emissions by 2050, and approving the County's own 2017 "Climate Action Resolution" acknowledging the importance of local action on climate change and re-affirming its support of the Paris Agreement on Climate Change. Because Arlington relies on electricity for about *two-thirds* of its total energy use, the transition to renewable electricity (solar, geothermal, wind) will make an enormous contribution toward achieving our greenhouse gas reduction goals.

## **2. Economic benefits**

- a. Low cost electricity.** The dramatic and ongoing drop in renewable electricity prices is driving the transition to renewables. In fact, renewable electricity already is the lowest-cost form of new electricity in Virginia, according to Dominion Energy Virginia. This price advantage is small now but growing each year, creating a strong basis for the 21.5% average annual growth rate in adoption of renewable electricity in Arlington needed to reach 100% in 2035.

- b. Enhancing Arlington’s economic competitiveness.** Major businesses are increasingly considering local commitments to renewable energy as an important factor in siting their offices. This is especially true in the technology sector, which is vitally important to Arlington’s economic future, and is becoming the norm in other sectors as well. Sixty-three percent of Fortune 100 companies now have set clean energy targets.<sup>1</sup>
- c. Reducing the risk of electricity price spikes.** Renewable electricity contracts provide more predictable long-term prices, and help avoid the budget-straining price spikes associated with extreme weather events such as the polar vortex of 2014.
- d. Energy security and resilience.** Renewable electricity is sourced from many locations, and increasingly will involve energy storage and, where appropriate, microgrids that are able to “island” themselves from the grid in emergencies. This less centralized and more flexible approach to generation provides many advantages in the event of a disaster affecting the power grid.

Before reaching agreement on our recommendation, we reviewed the scope of the proposal and identified several important concepts that contribute to its feasibility. Key points from our review include:

- **Scope.** The proposal is limited to electricity only, and is strictly a local proposal for Arlington County. It does not depend on or call for the entire grid to be carbon free, or for the state of Virginia or any other jurisdiction to adopt the 2035 goal. It does not in any way require Arlington to leave the grid or establish its own utility.
- **Reliance on “offsetting.”** The proposal relies on offsetting non-renewable electricity use. This is the only practical approach to take given the high likelihood that the grid serving Arlington will continue to deliver some electricity from non-renewable sources in 2035. The “offsetting” approach requires Arlington to purchase or generate an amount of renewable electricity sufficient to offset the amount of non-renewable electricity delivered through the grid. This is the same approach widely used in the business world,<sup>2</sup> higher education, municipal governments, and other institutions.<sup>3</sup> It provides the same greenhouse gas reduction benefits as if renewable electricity had been supplied through the grid.
- **Reliance on off-site renewable electricity generation.** To achieve its goal, the proposal relies substantially on the availability of large-scale renewable electricity generated outside of Arlington. These large-scale operations are the lowest-cost providers of renewable electricity, and already are economically viable in Virginia.<sup>4</sup> They are being built by Dominion Energy to sell renewable electricity to its customers, and by independent entrepreneurs who can sell

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<sup>1</sup> World Wildlife Fund, Ceres, Calvert Investments, CDF, Power Forward 3.0 Report, April 2017, available at <https://www.worldwildlife.org/publications/power-forward-3-0-how-the-largest-us-companies-are-capturing-business-value-while-addressing-climate-change>

<sup>2</sup> See, e.g., standards used by RE 100, available online at <http://there100.org/going-100>

<sup>3</sup> For the EPA’s list of 995 institutions that already have achieved 100% offsets, totaling 21.2 billion KW hours per year, see <https://www.epa.gov/greenpower/green-power-partnership-100-green-power-users>

<sup>4</sup> Currently, solar developers have filed a Notice of Intent for projects totaling more than 2,500 MW in Virginia, up from 22 MW two years ago. A current list of projects is available online at <http://www.deq.virginia.gov/Programs/RenewableEnergy/RenewableEnergyProjectsNoticesofIntent.aspx>

solar electricity via power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs).<sup>5</sup> One example of how this approach can work is the current initiative by the Northern Virginia Regional Commission (NVRC) exploring the possibility of a large-scale purchase of renewable electricity to offset usage by government operations of member jurisdictions, such as Arlington County.<sup>6</sup>

- **Use of RECs.** The proposal allows for the purchase of renewable energy certificates (RECs) as a temporary method to correct any unanticipated shortfall as Arlington approaches its 100% goal. RECs are available at modest wholesale prices and are a widely-accepted method of offsetting non-renewable electricity use.<sup>7</sup> For example, Georgetown University offset its electricity use in 2016 by 129% primarily through the purchase of RECs.<sup>8</sup> In 2016, Montgomery County, Maryland also began to obtain 100% of its electricity supply from renewable sources, partially through RECs.

We believe that actions by local governments should be an important driver of renewable energy growth, particularly where federal and state leadership is lacking. A deliberate but strong commitment on the part of the County to renewables is needed to help mitigate the effects of climate change, improve air and water quality, and protect and enhance the quality of life for all who live, work, learn and play in our community.

We would welcome any questions about our recommendation. We also request that the Board ensure that Arlington's AIRE team has the resources it needs to develop and implement plans to meet this goal. E2C2 looks forward to working with the Board, County staff, and the broader Arlington community to make this ambitious goal a reality.

Respectfully,



Christine Ng  
E2C2 Chair

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<sup>5</sup> For a general description of PPAs, VPPAs and other renewable power contracts, see <https://www.epa.gov/greenpower/green-power-supply-options>

<sup>6</sup> For an overview of the NVRC initiative, see "Northern Virginia Governments Look at Major Renewable Energy Purchase," available online at <https://powerforthepeopleva.com/2017/11/17/northern-virginia-governments-look-at-major-renewable-energy-energy-purchase/>

<sup>7</sup> For a general description of RECs and other renewable power contracts, see <https://www.epa.gov/greenpower/green-power-supply-options>

<sup>8</sup> For a list of major universities that have offset some or all of their electricity use, see <https://www.epa.gov/greenpower/green-power-partnership-top-30-college-university>